Human milk now for sale in O.C.

With help from a Southern California company, breastfeeding mothers can donate extra milk to feed premature babies.

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Every Friday morning, Dani Dawson brings her baby boy to a Mommy and Me class along with their gift for other babies - a few extra ounces of her breast milk.

Dawson donates her milk at the **Birth Connection** in Fullerton, which houses one of two new milk depots in Orange County. At the depots, breastfeeding moms can donate milk to feed premature or sick babies whose own mothers are unable to nurse.

"It's the least I can do," said Dawson, 28, of Placentia. "I would encourage other moms to do it. Jakob can share," she says of her 2-month-old.

The milk depots, financed by Prolacta Bioscience, a Monrovia-based human-milk processing company, represent the first time human milk has been sold in Orange County.

Prolacta takes an ancient custom – the sharing of breast milk produced by one woman to sustain another's baby – and turns it into a for-profit business.

Here's how it works:

First, breastfeeding mothers who pass a health screening can donate extra milk for free to depots (storage centers) set up by Prolacta at birthing centers, clinics or stand-alone storefronts. Prolacta pays the depots up to \$2 per ounce they collect. That money goes to the depot, not the mothers giving the milk.

Next, the milk is shipped on ice to Prolacta's 15,000-square-foot plant in Monrovia, where it gets pooled with other mothers' milk and pasteurized, killing any viruses or harmful bacteria.

Finally, Prolacta sells the milk to hospitals for as much as \$45 an ounce when it's fortified with extra calories for the smallest babies. Doctors prescribe the milk in much smaller doses (measured in milliliters) for tiny babies in the neonatal intensive care unit when their mothers aren't producing enough breast milk or have other health problems that prevent them from breastfeeding.

Investors in Prolacta are betting that the demand for donor breast milk is not met by the supply from the nation's nine nonprofit milk banks, which charge about \$3 an ounce – less than the cost of pasteurizing.

Prolacta officials would not say how much milk they have sold or to which hospitals. None of the Orange County hospitals with neonatal intensive care units are buying milk from Prolacta. But the company did say some research hospitals are studying the product for its value over formula in caring for premature and critically ill babies.

BREAST-MILK BENEFITS

For years, Orange County moms have donated their milk to be processed at the nonprofit **Mothers' Milk Bank** in San Jose, the only other bank in the state.

Children's Hospital of Orange County prescribes up to 10,000 ounces from the San Jose bank each year for babies in its neonatal intensive care.

Adoptive mothers and sick mothers also can get prescriptions for donor milk for up to \$100 a day, which is sometimes covered by insurance.

Breast milk is a valuable commodity.

The American Academy of Pediatrics recommends it for at least the first year of life. About 60 percent of U.S. women are breastfeeding when they are discharged from hospitals and only a third of those are still nursing after six months, according to the Academy. The government's Healthy People 2010 initiative sets a goal for half of mothers to breastfeed for at least six months.

Enter Prolacta.

Not enough babies are getting the preferred human milk, said the company's CEO, Elena Medo, an MBA candidate at UC Irvine and developer of a breast pump.

The higher price for Prolacta's milk is justified, Medo said, because the product comes with a nutrition label and can be specifically formulated for premature infants.

"Many of these babies have no chance of receiving human milk unless it is provided by donors," Medo said.

Breast-milk donors to Prolacta and the nonprofit milk banks are tested and screened for dozens of illnesses including HIV and hepatitis, which can be transmitted through milk.

The banks pasteurize the milk, which kills viruses and bacteria while keeping most of the vitamins and antibodies.

Studies have shown that breast milk is superior to formula because it offers immediate protection from infections. Long-term studies show that breast-fed babies also have lower rates of sudden infant death syndrome, diabetes, allergies and asthma.

"If the doctor recommends processed human milk, the parents usually agree," Medo said.

"If mom has been pumping but has fallen short of the supply needed, she is often relieved that her baby doesn't have to be fed infant formula made from cows' milk."

THE BUSINESS END

Backed by \$4 million from Silicon Valley venture capitalists, Prolacta has paid for 10 milk storage centers across the country at a cost of about \$20,000 each.

The set-up cost includes donor blood testing, freezers, shipping containers and licensing fees. Milk depots must be certified as tissue banks by the state health department.

Dozens more milk depots are expected to open this year, Medo said.

Lorri Walker, a nurse-midwife who opened a depot last month at **South Coast Midwifery and Women's Health Care** in Irvine, said she's proud to support donation. Walker received her first donation April 17 and said she's not yet sure how much extra income she'll get from supplying milk to Prolacta.

Some lactation consultants have ethical questions about companies making money off milk that women give for free.

"Any time there's something new there's resistance to change," Walker said. "It's a great opportunity for women in the community to support other women."

Courtney Smith of Ladera Ranch decided to donate after her baby, Gracie, spent nine days in the hospital after her birth in March. Smith was able to pump milk for Gracie but is concerned for other mothers who can't.

"It's a really practical way for me to volunteer right now with two small children at home," Smith, 29, said. "My motivation is just wanting to do something to help babies who are sick."

Smith says she's not overly concerned with the business aspects as long as the milk is getting to the babies who need it.

While donor mothers aren't paid by the company, they do receive an electric pump to express up to 8 ounces of milk a day.

The extra milk can be stored in plastic bottles or bags in a freezer for up to six months.

Both Walker and Erin Daugherty, director of the milk depot at the Birth Connection in Fullerton, will pick up the milk at mothers' homes.

Women with freezers full of extra milk can otherwise feel guilty not using it, Walker said.

"It's like throwing your artwork down the drain," she said.

PROFIT VS. NONPROFIT

Prolacta's launch initially was met with skepticism from the traditionally nonprofit donor-milk market.

Sure, people can make money off other bodily fluids (namely sperm) but breast milk? To some in the nonprofit world, it was a jarring suggestion.

The Human Milk Bank Association of North America, which sets safety guidelines for screening, sterilizing and distributing donor milk at the country's nine nonprofit banks, released a statement saying it does not endorse for-profit banks.

"Introducing the profit motive could put the infant of the lactating mother at risk," because milk depots that are paid for the breast milk they collect could pressure mothers to donate "regardless of their own infants' needs," according to the statement.

But Prolacta officials say their large-scale plant serves to supplement the supply from the smaller, nonprofit banks.

Prolacta says it has the capacity to process more than 10 million ounces of breast milk a year, or a month's supply for 100,000 low-birth-weight babies. Nonprofit milk banks distribute less than one-tenth that amount.

"By paying milk banks for their efforts to collect the raw milk, we are able to create a sustainable business model for community milk banking," said company founder Medo.

A local breastfeeding advocate said she supports any venture that promotes the use of breast milk. Still, she's more comfortable sticking to the nonprofit model.

"The bottom line is we're all working toward making breastfeeding the cultural norm," said Nancy Clifton-Hawkins, president of the Orange County Breastfeeding Coalition, which is working with UCI to open a milk bank at the hospital.

"We will be there for those women who choose the nonprofit side."